

DISPLAY PACKAGE WITH  
STABILIZING AND INDEXING MEANS

5

FIELD OF INVENTION

[001] The invention relates to a display package for one or more articles, in particular a blister-type package having means to allow display of the package on a support  
10 surface (such as a carrier container or a shelf) as a freestanding package and also to allow for self-indexing when a plurality of the packages are aligned. The packages are especially suitable for use with a pressure applicator used in conjunction with a support surface  
15 which moves the packages forward on the support surface as one or more packages are removed from the support surface. The invention also relates to the use of such packaging in merchandise point of purchase or sale display units.

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BACKGROUND OF THE INVENTION

[002] Blister-type packages are popular for storing and displaying products for sale. The packages generally include (1) a transparent plastic sheet material  
25 preformed into a blister pack which conforms to the shape of a product to be enclosed in the package and (2) a backing, flexible film or display card which is secured to the blister pack and thereby encloses the product. The packages are popular in that they are inexpensive,  
30 allow for visual inspection of the product and provide a background surface for imprinting to provide labels which

provide product information and an attractive appearance. Blister packages can be hung for display or stacked on a support surface for display, such as a shelf.

[003] Stacking blister packages on support surfaces,  
5 however, has certain disadvantages. For example, when a shelf space is completely stocked with product-containing blister packages, the packages are readily visible to and reachable by a consumer. However, as packages are removed from a shelf display, packages become less  
10 visible since they are spaced back from the front of the display area. Additionally, when closely stacked, conventional blister packages can be crushed and/or easily topple over resulting in a messy display. Personnel time is then required for restocking and/or  
15 reorganizing the display. To overcome this deficiency, many stores now use some means to move the packages forward on the display surface as packages are removed. One manner of providing movement forward is referred to as automated facing and utilizes a spring device or other  
20 pressure applying device pressed against the last package in a row of aligned packages which causes the package(s) to move forward into an empty space provided when a package is removed from the display. Due to the pressure applied, however, conventional blister packages tend to  
25 be unstable causing them to crush together and/or fall over resulting in a messy display or a display in which it is hard to remove a package or to reinsert a package once removed. Accordingly, a package may not be displayed properly or in good condition resulting in

nonconsideration of the product by a consumer and thus a missed sale. With automated facing, therefore, a manufacturer is required to utilize a sturdier, more expensive packaging and/or a retailer must expend  
5 increased personnel time to maintain a properly oriented display.

[004] Accordingly, a need exists to provide a blister package which is stable in storage and on display, in particular when used with a pressure applicator which  
10 moves packages into a forward visible position when displayed on a support surface. Stability in terms of both the ability to be freestanding and to provide self-indexing upon forced movement would be extremely beneficial.

# OBJECTS AND SUMMARY OF THE INVENTION

[005] A primary object of the invention is to provide a blister pack display package including a structural means for stabilizing the package on a support surface.

5 [006] A further primary object of the invention is to provide a blister pack and a display package including the blister pack having, as part of the blister pack, a foot or outward projecting portion to provide stability to the package in standing and indexing when aligned with  
10 other packages.

[007] A further primary object of the invention is to provide a method of displaying blister pack display packages on a support surface in conjunction with a pressure applicator for moving one or more aligned  
15 packages while on display, wherein the package is stabilized in terms of being freestanding and self-indexing in relation to other aligned packages.

[008] A blister pack display package of the invention includes a backing or back panel and a blister pack  
20 product or article enclosure. The blister pack in combination with a back panel provides for the complete enclosure of an article. The blister pack enclosure includes at least one article compartment and an outward projecting portion or foot in the bottom portion of the  
25 pack which serves to stabilize the package for substantially upright display and serves as an indexing means to properly orient the package in a display on a support surface, e.g. a shelf, carrier container or the like. In a point of sale display, stores use a spring

device or other pressure applicator to provide constant pressure on aligned packages on display on a shelf or the like to push remaining packages forward as packages are removed from the shelf. The foot of the blister package  
5 of the invention has a depth and width sufficient to provide for stability on standing and self-indexing, i.e. predetermined spacing between it and another aligned package. The stability of the package is further enhanced when at least a portion of the depth of an  
10 article-containing compartment in the blister pack is the same as the depth of the foot. Preferably, the package structures provides for three points of contact to provide stability and self-indexing, i.e. the front face of the foot, the bottom area of the foot which will  
15 contact a support surface and at least a portion of an article compartment having the same depth as the foot.

[009] In a first preferred embodiment, the foot is substantially uniform in width and depth. The width of the foot is preferably substantially the width of the  
20 package. The foot also preferably includes in a bottom wall thereof at least two downward protrusions for sitting on a support surface when the package is in an upright position. While the bottom wall does not have to be adjacent the support surface, the closer the point of  
25 contact, the more stable the package will be. In an alternative embodiment, one portion of the foot has substantially the same width and depth across the package while another portion has a lesser depth and/or width.

[0010] The blister pack is preferably transparent to allow for clear visibility of the one or more articles stored therein. The blister pack is preformed to include one or more areas or compartments conforming at least in  
5 part to the shape of the article to be enclosed by the blister pack. The compartment(s) for holding the article(s) can be separate from the outward projecting portion or foot, or the article compartment(s) can be continuous with the foot so that a portion of the article  
10 can extend into the internal space of the foot so that the bottom of the article can rest on the inner bottom wall of the outward projecting portion.

[0011] The blister packages of the invention are especially suited for display on a support surface in  
15 conjunction with a pressure applicator which maintains one or more aligned blister packages of the invention in a forwardmost position in the display so as to maintain visibility and access to the package(s). A method for arranging a plurality of blister packages having a foot  
20 as described above for display includes providing an open top carrier container or tray in which a plurality of blister packages are aligned in front to back relationship. The side walls of the container are of a height to hold the packages therein while allowing  
25 visibility of the article(s) held in the front blister package. The container having a plurality of packages aligned therein is placed on a support surface having a pressure applicator present in connection therewith so that the pressure applicator abuts the back of an aligned

package in the carrier container, so that the pressure applied by the pressure applicator is sufficient to maintain the plurality of packages in abutting front-to-back alignment in a forwardmost position in the carrier container when one of the plurality of packages is removed from the carrier container. The foot of the blister package provides stability to the packages to maintain the packages upright and provide self-indexing between the packages so as to maintain appropriate spacing and alignment. By maintaining proper spacing, crushing of the blister pack is also avoided.

[0012] Accordingly, the blister package including the blister pack with foot as described herein provides the advantages of maintaining the packages in an ordered display so that the packages remain upright and forward on a support surface to maintain visibility of and access to the product. Additionally, it is readily determinable when a product requires restocking. The stability feature for spacing and standing allows for a well ordered visible and accessible display and reduces personnel time in maintaining such displays.

#### BRIEF DESCRIPTION OF DRAWINGS

[0013] FIGURE 1 is a front view of a blister pack according to a first embodiment of the invention.

[0014] FIGURE 2 is a side view of the blister pack of FIGURE 1 with a back panel attached thereto.

[0015] FIGURE 3 is a bottom view of the blister pack and back panel of FIGURE 2.

[0016] FIGURE 4 is a front view of an alternative embodiment of a blister pack according to the invention.

[0017] FIGURE 5 is a side view of the blister pack of FIGURE 4 with a back panel attached thereto.

5 [0018] FIGURE 6 is a bottom view of the blister pack and back panel of FIGURE 5.

[0019] FIGURE 7 illustrates a plurality of packages according to the invention aligned in a carrier container positioned on a support surface in conjunction with a  
10 spring-operated pressure applicator.

#### DESCRIPTION OF PREFERRED EMBODIMENTS OF THE INVENTION

[0020] A blister pack and a package including the blister  
15 pack and a back panel are shown in the drawings. A first embodiment of the invention is shown in FIGURE 1-3 and a second embodiment of the invention is shown in FIGURES 4-6. FIGURE 7 illustrates a method of display including the package of the invention.

20 [0021] The blister pack 1 is preformed by conventional thermoform or injection molding, or like method as known in the art for forming a blister pack, from a sheet of plastic. A preferred thermoforming means is a horizontal form fill and seal machine. Alternatively, the blister  
25 may be formed on a thermoforming machine and later sealed on a sealing machine. Plastic suitable for use includes polyethylene, polypropylene, polystyrene, polyvinyl chloride, polyvinylacetate, polyamide, polyacrylamide, polymethylacrylate and the like. The forming of the



blister pack includes providing at least one compartment 3 which has a shape generally conforming to the article or articles to be held within the blister pack. The compartment(s) in combination with a back panel serve to  
5 receive and securely hold for shipping, storage and display one or more article(s). The plastic is preferably transparent to allow for ready viewing of the article(s) by a consumer.

[0022] The blister pack of the invention in addition to  
10 providing one or more article compartments additionally includes in a bottom portion of the blister pack an outward projecting portion 5 or foot. The foot provides for stability and indexing of the package when used in displaying the article(s) in the packages. The article  
15 compartment(s) can be separate from the foot or, as shown in the FIGURES, the article compartment(s) can be continuous with or merge with the foot compartment. As shown in FIGURES 1 and 2, and 4 and 5, the packages illustrated include two article compartments 3a and 3b  
20 wherein the bottom of compartments 3a and 3b are continuous with foot 5. Thus the bottom portion of an article (not shown) contained in compartments 3a and 3b will extend into foot 5 using the inside of the bottom wall 7 of foot 5 as a support base for the article.

25 [0023] Foot 5 has a width x and a depth y sufficient to allow the blister package to be freestanding. The width x of at least a portion of foot 5 is preferably substantially the same as the width of the package. The depth y is equal to or greater than the deepest portion

of article compartments 3a and 3b. The width x and depth y are variable depending on the overall size of the package. While the width of foot 5 preferably extends over the substantial width of the package, a lesser width is possible so long as the described function of the foot is achieved. To enhance the stability obtained, the foot may include two or more spaced downward extending protrusions 9 in the bottom wall 7 of foot 5. In the formation of a blister pack, a flange 11 is provided along the outer edge of the pack. Flange 11 provides for a flat space for abutment against a back panel 13, such as a cardboard backing. This point of abutment provides an area for attachment such as by adhesive, heat sealing or the like. The downward extending protrusions 9 can extend across this flange area to allow the base of foot 5 to rest squarely on a support surface and thus maintain the package including the blister pack in a substantially freestanding upright position.

[0024] In the first embodiment of FIGURES 1-3, foot 5 is essentially equal in width from side to side, equal in depth from side to side and equal in height from top to bottom except at the downward projecting protrusions 9. The depth y is determined based on the depth of the article compartment(s). In the embodiment of FIGURES 1-3, compartment 3a has a greater depth than compartment 3b. Within compartment 3a, the top portion of the compartment has a greater depth z' than the lower portion which has a depth z". For purposes of providing indexing based on foot 5, as is further described below, the depth

y of foot 5, at least over a portion thereof, should be equal to or greater than the greatest depth of the article compartment(s), which in the embodiment of FIGURES 1-3 is depth  $z'$  of compartment 3a. When the  
5 greatest depth of foot 5 is equal to the greatest depth of the article compartment(s), the resulting package has optimum indexing since aligned packages will readily square up against each other in alignment.

[0025] In the alternative embodiment shown in FIGURES 4-  
10 6, foot 5 below compartment 3a has substantially the same configuration as foot 5 in FIGURE 1. Below compartment 3b, however, foot 5 angles inward at 15 and has a varying height and depth. Bottom wall 7 of foot 5 is the support base for an article contained in compartment 3a. Bottom  
15 wall 17 is the support base for an article contained in compartment 3b. Thus, as long as a portion of foot 5 provides a width  $x$  and depth  $y$  in a stabilizing amount for freestanding support and indexing (as described herein), foot 5 can provide the advantages of the  
20 invention. This allows for variation in sizing of article compartments to provide for better containment and thus protection of an article contained therein.

[0026] The illustrated blister pack in use contains an article in compartments 3a and 3b. A back panel 13 is  
25 attached to blister pack 1 along flange 11. Foot 5 provides for a desired spacing between a plurality of the packages when the packages are placed in front to back alignment, such as in a sales display. The blister pack provides self-indexing when packages are hung using a rod

through an opening 19 or packages are stood on a support surface, such as a shelf.

[0027] The advantage in a hanging display is that foot 5 provides for spacing in order that an appropriate number of the packages can be neatly positioned and avoid overcrowding and crushing of the packages. An organized display of undamaged packages is then provided.

[0028] In relation to a support surface, the foot allows the package to be freestanding, provides for automatic spacing, and self-indexing, during placement of the packages in a carrier container, during storage and shipping, and upon display. A package including a blister pack 1 with foot 5 is especially advantageous for self-indexing when positioned on a support surface having in conjunction therewith a pressure applicator. Many stores utilize a pressure applicator arranged in the back of a shelf display to push packages forward as packages are removed from the display. This serves to maintain the displayed packages in a forwardmost position on the shelf for good visibility to and access by a consumer. An example of such arrangement with the packages of the invention is shown in FIGURE 7.

[0029] A shelf 21 has a back wall 23. Attached to back wall 23 is a pressure applicator 25, which may be a spring 27 with a push panel 29. A plurality of packages are positioned in a front to back alignment in an open top carrier container 31. Push panel 29 abuts the back panel 13 of the last package present in container 31. As a forward positioned package 1 is removed from container

31, the remaining packages present are moved forward by pressure applicator 25 to fill the resulting empty space. A package is thus always forwardmost on the shelf for visibility and access. This arrangement also allows for  
5 store personnel to readily determine when a display is empty and restocking is required. Additionally, the display remains neat and organized reducing the time for a shopper to find the product and reducing the time required by store personnel to reorganize a display which  
10 occurs when packages would fall over or are tipped over in a display or are positioned at the back of a shelf following removal of the forwardmost packages.

[0030] Accordingly, the blister pack of the invention with foot 5 provides numerous advantages for the  
15 manufacturer, the point-of-sale seller and the consumer.

[0031] As will be apparent to one skilled in the art, various modifications can be made within the scope of the aforesaid description. Such modifications being within the ability of one skilled in the part form a part of the  
20 present invention and are embraced by the appended claims.